the end of November; the middle, lasting to the end of March; and the maximal, from the last of March to the middle of August. The daily growth in height is twice as great in the middle as in the minimal period, and two and a half times as great in the maximal as in the minimal period. Thus the growth period extends from the end of March to December, and falls into two parts—first, the maximal period of height and then that of weight. Thus the minimal period of weight falls in the maximal period of height and *vice versa*. Increase of weight grows suddenly from a minimum to a maximum and then slowly declines, while increase of height comes on slowly and declines suddenly. In the maximal period of increasing height, growth in thickness is at its minimum, and conversely. He then infers that as much as possible of the periods of growth in both height and weight should fall for school children in the summer vaction. Besides these annual phases, these studies reveal growth periods of 25 and also of 75 days. Whether these are due to local meteorological conditions, as sun-rotation periods of 27 days, which Malling-Hansen calls growth energy, is not clear. The history of daily variations, especially in height, due in part to compression of cartilages and loss of elasticity of the arch of the foot caused by standing, and the converse effects of rest, is given with great detail for every hour of school life, and is full of interest. The author believes he has only obtained a very inadequate glimpse of a wide and rich field of research.

Le Surmenage Scolaire. Par CH. FÉRÉ. Le Progrès Médical, February 5, 1887.

The writer starts with the dictum of Spencer that the first condition of national prosperity is that the nation be formed of good animals. Sedentary life and intellectual work have always tended to become unnatural. Tissot, in his acute work on the health of men of letters, written in the last century, and Réveillé-Parise, in his book on the physiology of men devoted to mental work, Rousseau, and more recently Lagneau and Dujardin-Beaumetz, have directed public attention, with increasing explicitness, to the dangers of sedentary mental work, which are: I. Those due to unfit places. The site is often badly chosen. If the rooms are small there is more danger of contagious affections; insufficient air gradually impoverishes the blood, and anaemia, chlorosis, depression, bring receptivity to all morbific influences. II. Haste in eating, bad cooking, and food unscientifically chosen, cause defective nutrition of some parts or organs of the body. III. Clothing is often unpedagogic in form or thickness. Because of the proportion of surface to mass of body, children, it is known, lose relatively more heat than adults, and it is often forgotten that clothing is to an extent a caloric equivalent of heat, and that brain-workers need to dress warmer than muscle-workers. IV. Insufficient exercise brings constipation, then slow blood and nutrition so ill adapted to growth that even the teeth are starved into bad development and piles and incipient sexual weaknesses appear. V. Excessive labor is laid on the eyes and sometimes the fingers. VI. Bad attitudes. The race has hardly had time to adapt itself to sedentary intellectual life. Lying on the back is particularly favorable to brain circulation. According to elaborate statistics by Guillaume, the percentage of girls and boys who are more or less deformed by bad attitudes is

forty-one and eighteen respectively. Besides three distinct species of lateral curvature, all largely due to unhygienic attitudes in writing, other thoracic deformities are induced, the effect of all of which is to reduce the vigor of respiration, circulation, and impair nutrition and growth. VII. Vicious habits. Prolonged sitting favors pelvic congestion and local irritation, strongly inclining to masturbation, to which the mental anomalies of deterioration strongly predispose our degenerate youth. Since Tissot (L'onanisme: Œuvres, T. 1), many psychic and somatic troubles have been attributed in form to secret vice. The result is general exhaustion, causing troubles of nutrition, circulation, memory, and depression, irritability, fluctuations of mood, etc. VIII. Excessive mental labor. Moreau's "irritable diathesis" seems increasingly often caused among those striving to acquire culture in the lower classes, and the somewhat greater liability to this form of degeneration among the upper classes is due to heredity. In general, subjective sensations are more vivid in fatigue. Nervous exhaustion tends to depression, which precedes most vesanias. In fine, all these causes together are tending to that form of degeneracy which is incapable of productive effort.

The Children. How to Study them. By FRANCIS WARNER, M. D. London, 1887. pp. 80.

These lectures, given to the Froebel Society, are especially devoted to ways of observing nutrition, eyesight, facial expression, gesture, and posture. The functions of the arm, hand, and spine are especially to be scrutinized, and points to be observed during sleep are enumerated. Some of the cuts and conclusions of the author's work on physical expression, described in our last number, are reproduced.

Tachyhippodamia. By WILLIS J. POWELL. Reprinted in the Southern Live Stock Journal during July, August, and September, 1887.

This rare and often vainly-sought handbook, privately printed in 1838 and sold at a high price as the revelation of a valuable secret first discovered by the author in 1814 and perfected during twenty subsequent years, is here for the first time accessible to the general reader. The author was at first a teacher of Greek, Latin, and modern languages, who later acquired a fortune by this art of taming wild horses freshly caught from the plains of Texas and Mexico, in from two or three to six or eight, or in rare cases twelve or even sixteen hours, all without the least violence. The tamer approached the horse which had been driven, led, or dragged with the lasso into a small enclosure. The animal first turned his tail to the trainer, but in fifteen minutes or half an hour turned about. By motions so slow as to be almost imperceptible the hand was extended and the man approached, stopping instantly at the faintest sign of flinching or fear. At length the nose could be touched and tapped or patted by very slight but rapid movement. Inch by inch this "gentling" process proceeded to the neck, body, fore and hind legs, to the feet, tail, ears, etc., till the horse had been handled all over. All animals have much pleasure in dermal sensations, for the sake of which they will endure more and more sudden and violent aural and optical sensations, and these are the best means of removing fear, which